

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
18 January 2001 (18.01.2001)

PCT

(10) International Publication Number
WO 01/04607 A1(51) International Patent Classification?: G01N 21/25,
33/12(74) Agent: GRANT, Michael, J.; Patent Attorney Services,
26 Ellingworth Parade, Box Hill, VIC 3128 (AU).

(21) International Application Number: PCT/AU00/00830

(81) Designated States (national): AE, AL, AM, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), EE, EE (utility model), ES, FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW.

(22) International Filing Date: 10 July 2000 (10.07.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PQ 1544 9 July 1999 (09.07.1999) AU
PQ 2828 14 September 1999 (14.09.1999) AU

(71) Applicant (for all designated States except US): RMS RESEARCH MANAGEMENT SYSTEMS INC. [CA/CA]; #1, 4216 - 10 Street, NE, Calgary, Alberta T2E 6K3 (CA).

(72) Inventor; and

(75) Inventor/Applicant (for US only): MALMSTROM, Kurt [AU/AU]; Suite 8, 94 George Street, Beenleigh, QLD 4207 (AU).

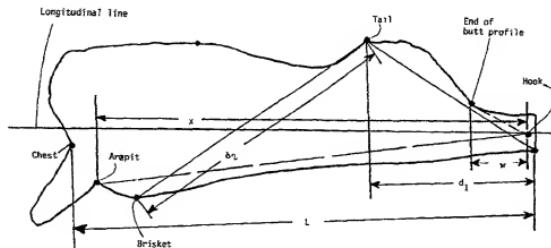
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— With international search report.

[Continued on next page]

(54) Title: IMAGE DATA ANALYSIS OF OBJECTS



(57) Abstract: A method is disclosed for analysing colour image data relating to a target object, particularly an animal carcass, to derive or predict a property of the object of which colour is an indicator, such as meat yield. The method includes the step of processing the colour data to derive "intensity normalised" or light intensity independent measures of colour values, followed by the step of calculating the property of the object utilising the light intensity independent colour measures in a predictive equation in which the light intensity independent colour measures are variables and the property of the object is calculated from solving the predictive equation. The predictive equation can be developed from data gathered during a data gathering experiment using images captured for real target objects, and correlating the light intensity independent colour measures obtained from these data with the actual measured property of each of the real target objects to derive the predictive equation by statistical analysis techniques to best fit the data. For meat carcass analysis, the property predicted can be the "yield", "conformation", or "fat score" of a carcass in a standard carcass grading system, or can be the "yield grade" or "quality grade" of meat from a carcass in a standard meat grading system.

WO 01/04607 A1